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## **Impacts of Foreign Direct Investment on China's Construction Industry**

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### **Abstract**

China's national construction industry is now preparing to face the challenges, and to seize the opportunities, resulting from China's entry to the World Trade Organisation (WTO). With the foreign direct investment (FDI) hitting a record high of around US\$52.7 billion in 2002, China is believed to have now surpassed the USA as the world's favourite destination for foreign investment. This fact, coupled with the huge potential for infrastructure development, indicates that the relatively large proportion of FDI flowing into the national construction industry will continue to increase in the foreseeable future. Positive aspects of FDI flowing will definitely help forging new industrial capabilities for China's construction industry, thus helping it to achieve the ambitious strategic targets set by the Government for exporting construction goods and services. To shed some light on the position of the national industry in the global economy, this paper briefly presents the current international standing of China's construction industry and qualitatively appraises potential positive influences of, and challenges associated with, FDI on the national industry.

### **Keywords**

China, Construction Industry, Exporting Services, Foreign Direct Investment, World Trade Organisation

### **1. Introduction**

Globalisation is a key trend of today's economic development. It provides an opportunity for developing countries to structurally readjust and upgrade their economies. China's successful entry to the World Trade Organization (WTO) symbolises China's active integration into the global economy. As one of the most dynamic ingredient of the global economy, foreign direct investment (FDI) has profound impact on China's economy in general, and the national construction sector in particular. Despite the recent record fall in FDI flows worldwide, China managed to be among the top 10 countries that recorded absolute increase in FDI flows (Anderson and Schemberg, 2002). In 2002 alone, China has attracted a record US\$52.7 billion in FDI (Kynge, 2003), surpassing the U.S.A. as the prime destination to invest for the multi-national firms (Plants, Sites and Parks, 2002). Although the actual amount of FDI into China is unlikely to surpass that flows into the U.S.A. any time soon (Holland, 2002), China has demonstrated its potential in improving the critical variables needed for creating an attractive environment for foreign investment. These variables include political stability, quality of infrastructure and government policies towards private enterprises and competition, along with the macro economic environment (Ahmad, 2002).

In recent years, the focal point of utilising foreign investment in China has shifted from the processing and assembling of industrial products to high-tech and capital-intensive industries. To improve select sectors and industries, the government continues to encourage foreign firms to invest in fields such as high-tech industries, infrastructure and environmental protection (Luo *et al*, 2001). Consequently, both the total amount and the proportion of FDI flowing into the construction industry continue to increase.

## 2. Impact of FDI on Construction

A study of 12 Asian economies with particular focus on the construction sector reveals three trends that characterised globalisation in the region during the 1990s; namely 1) larger private sector participation in infrastructure projects, 2) increased vertical integration in the packaging of construction projects and 3) increased foreign participation in domestic construction (Raftery *et al*, 1998). The large share of private sector and the increase of project complexity have attracted foreign construction firms to apply their capacity and resources in Asia (Raftery *et al*, 1998). Similar trends have been observed in China since much more profound economic reform was carried out during the 1990s. From standpoint of the Chinese construction industry, the positive benefits of FDI mainly lies in providing capital investment, transferring technology and management skill, improving mechanism of the construction market, and stimulating export-oriented contracting (Luo *et al*, 2001). Each one of these benefits is discussed below.

### 2.1 Increasing Inflow of Capital Investment

The foreign investment absorbed by capital construction in China surged from RMB Yuan 7.35 billion in 1985 to a record high of RMB Yuan 144.52 billion in 1998. The annual proportion of foreign investment in national construction fluctuated between 6% and 15% – in line with the global economic cycle. FDI has played a key role in making up the shortage of funds in China's capital construction, required for further development of the eastern coastal region and major cities, as well as for the fulfillment of government's recent strategy to develop the western and central provinces. From 1985 to 2001, the share of financing by the non-state sector in capital investment increased from 47% to 60%. In contrast, the proportion of the state budgetary appropriations decreased from 35% to 14%. During the same period of time, the share of investment in local projects increased markedly from 46% to 60%, whilst the share of Central Government projects dropped from 54% to 30%. The size of investment into local projects in 2001 is approximately 20 times that recorded in 1985. The figures shown in Table 1 indicate that FDI has increased substantially over this period of time, mainly due to the deregulation policies. With more anticipated reforms in the foreseeable future, FDI flowing into construction is expected to increase.

**Table 1 Investment in Capital Construction in China (RMB Yuan 100 million)**

Year	By Source of Funds						By Administration Region		
	State Budgetary Appropriations	Domestic Loans	Foreign Investment	Fund-raising	Others	Total	Central Government Projects	Local Projects	Total
1985	381.18	187.92	73.52	339.99	91.76	1074.37	575.24	499.13	1074.37
	35%	17%	7%	32%	9%	100%	54%	46%	100%
1990	363.59	378.62	224.05	529.92	207.62	1703.8	919.15	784.67	1703.82
	21%	22%	13%	31%	12%	100%	54%	46%	100%
1995	491.67	1,646.24	1,055.42	3,121.86	899.98	7,215.17	2970.67	4432.95	7403.62
	7%	23%	15%	43%	12%	100%	40%	60%	100%
1998	1,021.32	2,814.36	1,445.15	4,870.26	1,461.22	11,612.31	4122.92	7793.51	11916.43
	9%	24%	12%	42%	13%	100%	35%	65%	100%
2001	2052.31	3637.15	898.13	6231.09	1443.09	14261.77	4399.47	10420.63	14820.1
	14%	26%	6%	44%	10%	100%	30%	70%	100%

Source: Derived from National Bureau of Statistics of China (2002), China Statistical Year Book 2002.

## **2.2 Transferring Advanced Technology and Project Management Skills**

The objectives for China to introduce FDI are to acquire advanced technology, management and design expertise as well as to enhance its ability to export high quality goods and services (Walker *et al*, 1998). Much of these objectives have been indeed achieved over the last twenty-five years. FDI in the Chinese construction sector normally takes the form of equity joint ventures (JVs) or cooperative ‘contractual’ JVs (Luo *et al*, 2001), where the Chinese parties have the opportunity to observe and to learn ‘first-hand’ international project management practices from the foreign counterparts through their joint operations. During the 1990s, most of foreign participation were limited to consultancy services; namely engineering design, project management and supervision, as well as training provided for large local construction companies - usually state-owned enterprises (SOEs) (Chen, 1997).

Currently, the ever-increasing foreign participation and the trend of vertical integration of construction projects have intensified the complexity of the projects thus requiring more sophisticated technologies and financing devices. Construction projects that are either financially or technically unfeasible to be procured by local enterprises are becoming more accessible to foreign firms. A typical example is the large-scale state-sponsored infrastructure schemes that are increasingly affected by means of the build-operate-transfer procurement system – adopted in order to reduce government borrowing and debt (Luo *et al*, 2001). Undoubtedly, the growing FDI presents more opportunities for China to take advantage of technology transfer requirements – in the investment agreement – to improve both corporate and commercial management skills thus helping local enterprises moving up the learning curve.

## **2.3 Improving Market Mechanism and Strengthening Domestic Firms' Competitiveness**

The Chinese government has made, and continues to make, huge efforts to encourage and support the development of the local private sector and to establish a unified domestic market for fair competition particularly after the country's entry to WTO. In fact, the creation of a market environment where enterprises of various kinds of ownership arrangement can compete with each other under fair conditions is one of the most pressing tasks facing China's attempts to reform construction SOEs, since this helps to mitigate the information asymmetry problem between the State and managers (Sha and Lin, 2001).

A correlation analysis undertaken by Han and Ofori (2001) shows that liberalisation of ownership, in China, is positively related to the strength of the construction industry represented by the annual growth rate of construction value-added, whereas state-domination is negatively related with the same indicator. This important finding reveals that the collective and private sectors are more vigorous and successful than the state sector in operation and growth. In fact, according to the 2000 statistical data, illustrated in Table 2, the non-state sector in China has demonstrated much higher profitability and productivity than their state-owned counterpart, in particular, the enterprises exclusively financed by FDI achieved the highest productivity and profitability (pre-tax profit per laborer), while the effectiveness of JVs was also in a leading position.

The Chinese government is now using FDI to assist the transformation of SOEs (Luo *et al*, 2001). According to China Daily's report, a new set of regulations on foreign mergers and acquisitions (M&As) is formulated to extend foreign purchases to both SOEs and private owned enterprises (Chen, 2002). It is expected that booming foreign M&As will help to invigorate many idle domestic assets (Chen, 2002). As FDI grows with further relaxation of the Chinese construction market, FDI will continue to be a major driving force in the national construction sector. This will be realised by introducing fair competition through adopting more transparent procurement processes pertaining to international standards, and increasing the efficiency of local firms via productivity spillovers – capturing some superior production technologies and management techniques possessed by the transnational companies that operate in China, and especially via M&As.

**Table 2 Main Profitability and Productivity Indicators of Construction Enterprises in 2000**

Ownership Type	Ratio of Profit to Gross Output (%)	Ratio of Pre-tax Profit to Gross Output (%)	Profit per Laborer (RMB/person)	Pre-tax Profit per Laborer (RMB/person)	Ratio of Liability to Assets (%)	Productivity, Gross Output per Laborer (RMB/person)
National Total	1.5	4.6	963	2,904	71.0	59,585
State-owned	0.4	3.5	310	2,742	76.0	72,826
Collective-owned	2.1	5.3	917	2,365	66.1	44,046
Private-owned	2.6	5.9	1,320	2,948	56.1	49,644
Liability Limited by Shares	2.4	5.4	1,821	4,020	69.0	69,117
China-Foreign Joint Venture	2.7	5.6	1,821	3,861	67.1	63,518
Exclusively Foreign Funded	1.9	4.5	2,970	6,863	62.5	100,621
Exclusively Funded from Hong Kong, Macao or Taiwan	1.0	4.1	1,199	4,994	65.7	93,448

Source: Derived from Ministry of Construction (MOC), 2002. *China Building Industry Yearbook 2001*, China Building Industry Yearbook Press, pp 794 - 857.

## 2.4 Stimulating the Development of Export-oriented Contracting

Large-scale FDI funded projects are usually executed by international firms in collaboration with Chinese companies, frequently with technology transfer as a feature of the contract arrangement. During the construction phase, an international contractor normally acts in a project management role, as the main contractor or a JV partner of a Chinese construction company (Walker *et al*, 1998, pp 72). FDI projects provide local firms with opportunities to practise over the whole project delivery chain with international partners and according to international standards. Joint-operations in FDI projects have helped local firms to overcome the disadvantages caused by their long-term isolation within the planned economic system. The experience obtained by local firms through FDI projects has, in turn, served as guidance to their exporting activities. FDI has stimulated the development of export-oriented contracting through technology and management skill transfer to the Chinese construction sector. Reviewing China's construction related exports; namely contract engineering, labour service cooperation and design consultation, Zhao (2001) reveals that the export expansion before 1992 was attributed mainly to the enlargement of production scale, while the much more in-depth economic reform after 1992 has led to the acceleration in overseas market development. To illustrate, only one Chinese contractor was, in 1984, included in ENR top 225 international contractors (Wang, 1998, pp 26). However, in 2002, 39 China-based firms managed a revenue share of 5.0% in the ENR top 225 international contractors (ENR, 2002). In the same year, 11 leading Chinese design firms were listed in the ENR top 200 international design firms (ENR, 2002). China's tenth 'Five-Year-Plan' sets out the following strategic targets for contracting service export (Cui, 2001):

- in 2005, China will achieve annual exporting contract sum (value) of US\$ 28-33 billion and revenue of US\$ 22-25 billion;
- from 2001 to 2005, both contract sum (value) and revenue will increase at an annual rate between 14% and 17%; and
- from 2001 through to 2005, the number of Chinese employees working abroad will increase by 6% each year, and will reach 550-600 thousands by 2005.

The above ambitious strategic targets reflect the government's commitment to promote an exporting culture amongst Chinese contractors and designers. Positive aspects of FDI will definitely help forging new industrial capabilities for China's construction industry, and thus greatly contributing towards achieving these targets.

## 2.5 Challenges and Concerns Facing Domestic and Foreign Businesses

With more foreign firms are expected to be attracted to operate in the Chinese construction market, the more tense the competition will be among local firms that have already suffered, for decades, from a bureaucratic, cumbersome, and centrally planned system. Such firms lack the appropriate technological and organizational skills needed to cope with this increasingly competitive environment. This fact, coupled with the booming non-state owned sector, will lead to a large-scale restructuring of the industry. As a result, there are genuine concerns, particularly in the short-term, that imported construction services would grow at the expense of the local sector (Raftery *et al*, 1998). As for foreign investors and service providers operating in China's transitional economy that is characterised by weak market structure, inadequately specified property rights, and institutional uncertainty, they too have to deal with enormous challenges brought by such a complex and dynamic business environment, where information is not codified, regulations are inexplicit and law enforcement is weak (Luo, 2000). In seeking a solid supply relationship and comprehensive buyer network in China, foreign firms often have to utilise local partner's industrial and business background, market position, and established marketing and distribution networks through JVs or the other types of alliance. Under this arrangement, technological and managerial skill transfer is usually formed as an essential part of the agreement. On one hand, local firms highly value these attributes that have potential to strengthen their marketing effectiveness in the international market. Foreign companies, on the other hand, are reluctant to create more competitors in the already established international market. This is a reasonable concern taking China's ambitious exporting targets into consideration. Foreign firms, understandably, wish to maintain as much control as possible over their own specialist technology and knowledge, and require an economic return if the transfer is deemed necessary (Walker *et al*, 1998, pp 44).

## 3. Concluding Remarks

With the output directly serving the host country market, FDI in the construction sector has huge potential to establish linkage through employing workforce, procuring plants and materials as well as providing high quality service at a reasonable price. The effects of productivity spillovers brought by FDI will create benefits in a way of positive externalities such as technology transfer or integration of domestic local enterprises into the global market (Hanson, 2001; Luo, *et al*, 2001). It has been found that FDI is an important factor contributor to the rapid growth of export (Sun, 2001). In view of this, FDI flowing into the construction sector is at the forefront of forging new industrial capabilities.

The local construction industry, in China, is now preparing to face the challenges and to seize the opportunities resulting from China's entry to WTO. Currently, accelerating the pace of reform is an essential strategy for local firms, which are encouraged to continually acquire new technologies and international management expertise through project-based JVs or other form of alliance with multinational companies. The large construction company groups are urged to build R&D capability and to develop human resources that are competent enough to work on overseas projects and within the increasingly open domestic market. It is widely recognised that the local industry will need to establish competency in technology, finance and management in order to manage the challenges in an environment that is becoming much more global, de-regulated, open and competitive. The foreseeing fierce competition has already started to stimulate the Chinese construction sector's massive efforts in establishing special comparative advantages. Foreign investors and construction service providers are actively pursuing market positions and business expansion in the potentially lucrative Chinese market. In doing so, they aim to create longer and deeper relationships through offering technologies and skills within the context of China's needs (Li, 2001). This, in turn, helps transform their superior resources into greater bargaining power and organisational control in the various types of alliance with local partners (Luo, 2000). It is expected that foreign companies' technological strengths and their local partners' marketing competence would create operational synergies that are mutually beneficial to both parties.

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